

March 21, 1994

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, N.W., Room 222  
Washington, D.C. 20554

Re: Establishment of an Advisory Committee to Negotiate  
Proposed Regulations Governing the 27.5-29.5 GHz Band  
(CC Docket No. 92-297)

Dear Mr. Caton:

COMSAT Corporation ("COMSAT") hereby submits its Comments in response to the Public Notice, Mimeo No. 41726, released on February 11, 1994, in the above-captioned proceeding. The Public Notice requested comments on the establishment of an Advisory Committee to negotiate regulations defining the technical rules for the shared use of the 28 GHz frequency band (27.5-29.5 GHz) by both satellite uplink and terrestrial point-to-multipoint service providers.

COMSAT agrees with the Commission's tentative conclusion that the instant proceeding is suitable for the negotiated rulemaking process. The coordination issues involved in developing appropriate sharing criteria for satellite uplink and terrestrial point-to-multipoint usage of the 28 GHz band are highly technical. These issues can best be resolved through negotiation by the licensed service providers and applicants for this band and other parties whose interests will be affected by the outcome of this proceeding.

The Commission has identified 17 parties, including the Domestic Facilities Division, as having interests that are potentially affected by the 28 GHz rulemaking and which qualify these entities for participation on the Advisory Committee. See Public Notice at para. 8. The potential participants include entities with mobile satellite service ("MSS") interests and fixed satellite service ("FSS") providers. Although COMSAT has interests which are similar to those of the MSS and FSS nominees, COMSAT has not been identified as a potential participant in the 28 GHz negotiated rulemaking.

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Among the interests viewed as significant by the Commission are those of the pending "Big LEO" MSS applicants which plan to operate in the 1610-1626.5/2483.5-2500 MHz bands. At least two of these applicants (TRW and Motorola) have formally filed for spectrum in the 20/30 GHz band for use as their satellite feeder links. COMSAT is not currently an applicant for the MSS spectrum above 1 GHz. Nonetheless, COMSAT, as the U.S. Signatory to the International Maritime Satellite Organization ("Inmarsat"), has an interest in the proposed Inmarsat-P service which will offer international hand-held satellite communication services similar to those planned by the "Big LEO" applicants.

The Inmarsat-P baseline band for service links is expected to utilize different frequencies from those employed by the "Big LEO" applicants. Should Inmarsat-P be deployed in an intermediate circular orbit ("ICO"), Inmarsat would have a need to accommodate ICO feeder links using between 100 MHz and 200 MHz of bandwidth, in each direction, within the 20/30 GHz FSS allocations, depending upon the design of the satellite and the extent to which digital channelization could be employed.<sup>1</sup>

The Commission has indicated in both the instant proceeding<sup>2</sup>, and the MSS proceeding<sup>3</sup>, that it expects to be able to identify sufficient spectrum in the 28 GHz band to accommodate the uplink feeder requirements of all the MSS above 1 GHz licensees. As the Advisory Committee considers the issue of satellite and terrestrial sharing in the 28 GHz band and the need to accommodate the uplink requirements of the Big LEO applicants, COMSAT requests that the Committee also take into account the feeder link requirements of the Inmarsat-P service in their estimate of the total spectrum requirements likely to be needed in the 28 GHz FSS band.

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<sup>1</sup> The specific feeder link spectrum requirement for Inmarsat-P will depend upon whether or not a full digital narrowband beamforming processor is implemented on the spacecraft. This processor provides the needed connectivity between selected feeder link channel slots and the service link beam ports. The total bandwidth required is a function of the "granularity" of the digital channel processor (i.e. the bandwidth per channel slot and the total number of channel slots employed).

<sup>2</sup> See Second Notice of Proposed Rulemaking (CC Docket 92-297), FCC 94-12, released February 11, 1994, at para. 22.

<sup>3</sup> See Notice of Proposed Rulemaking (CC Docket No. 92-166), FCC 94-11, released February 18, 1994, at para. 77.

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Moreover, as the U.S. Signatory to the International Telecommunications Satellite Organization ("Intelsat"), COMSAT provides fixed satellite services to carriers in the United States which will use the 28 GHz band under consideration. Accordingly, in devising a spectrum sharing proposal between satellite and terrestrial systems, COMSAT requests that the Advisory Committee give careful study and analysis to the potential for interference by terrestrial point-to-multipoint distribution services to fixed satellite services.

COMSAT does not intend to seek nomination to the 28 GHz negotiated rulemaking committee. The Public Notice indicates that the Commission expects to limit the number of participants on the Advisory Committee to between 20 and 25 entities. See Public Notice at para. 10. COMSAT understands that each potentially affected entity cannot have its own personal representative on the Committee and that there is a need to keep the number of participants to a minimum. Given the proposed participation of the Domestic Facilities Division and at least five Big LEO MSS applicants and two FSS service providers, COMSAT trusts that its interests in the 28 GHz band can be adequately addressed by the current nominees to the Committee.

Should the Commission desire COMSAT's participation and expertise in providing technical resources or additional information to the Advisory Committee, COMSAT would be pleased to provide such assistance.

Respectfully Submitted,

COMSAT Corporation

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